

ABSTRACT OF THE DISCLOSURE

In a wavelength division multiplexing optical transmission system, in order to know an influence amount 5 of a temperature dependency of a dispersion slope, a method of monitoring a dispersion variation amount in two or more of wavelength channels is provided. Further, a method of compensating a wavelength dependency of a temperature dependency of the dispersion by providing an appropriate 10 dispersion individually to the channels or summarizingly for all of bandwidths based on the monitored dispersion variation amounts is provided. According to the present invention, in the WDM optical transmission system, a deterioration in a transmission characteristic by 15 influence of a temperature variation of the dispersion slope can be reduced.